Draft Removal Action Memorandum
Grant Road Drum Site
Houston, Harris County, Texas

I. Purpose

A preliminary assessment, performed by the EPA On-scene coordinator and the Technical Assistance Team, at the Grant Road Drum Site, Houston, Harris County, Texas. In accordance with National Contingency Plan Guidelines, the OSC has identified that there exists a potential threat to public health or welfare or the environment, posed by the presence of approximately sixty deteriorated and abandoned drums. The drums have been shown to contain significant concentrations of hazardous substances including various volatile organics and heavy metals.

The OSC has determined that this site meets the criteria as specified in SARA and the National Contingency Plan for an Immediate Removal, prompting this request.

II. Background

The site is located north of Grant Road and west of State Route 149, in the northern portion of Houston, Harris County, Texas. The property is a heavily vegetated and wooded lot which is generally flat.

The property contains approximately sixty 55-gallon drums in various degrees of deterioration. Nearly all of the drums appear to be full and several drums are open.

It has been determined, through communication with the Texas Water Commission, that the property management firm which handles the property is the Raymond R. Betz Company. The company has stated that the property, which contains the drums, was purchased by a group of investors in 1982. It was also learned that the property may have been the previous location of a fertilizer or pesticide operation.

Access to the site is currently unrestricted and there is evidence that childrem play on or adjacent to the property. The drums are well rusted, precariously stacked and exposed to the continued effects of the weather.

The site is situated approximately 100 feet from active businesses to the northeast, two-tenths of a mile from local residences, churches and a daycare center and four-tenths of a mile, to the west, of Cypress Creek High School. The site is also approximately two miles from a local well water field and Greens Bayou, which is a tributary to Buffalo Bayou and Galveston Bay, to the south.

On September 22, 1987 the OSC and TAT performed an assessment, which included the investigation of the drums, the collection of four samples from the open containers and the documentation of site conditions. Nearly all of the drums appeared to be full. The open drums proved to contain liquids, sludges and solids or combinations of several phases. Samples were collected from all three matrices for analysis. The samples were delivered to and analyzed by the EPA Region VI, Houston Branch, Houston Laboratory. All samples were analyzed for volatile organics (VOAs). These samples contained various VOA target compounds ranging in concentration from 46.4 ug/l to 92,000,000 ug/kg. The slugde and solid samples were also analyzed for acid base/neutrals (ABN), pesticides and PCBs, and metals and cyanide. The samples were shown to contain significant concentrations of o-xylene, m-xylene and/or p-xylene, ethyl benzene, toluene, trichloroethene, lead, chromium, and various tentative organic compounds.

The site has not received a Hazard Ranking System (HRS) score and, therefore, is not a National Priorities List (NPL) site.

III. Threat

Approximately sixty badly deteriorated 55-gallon drums, containing significant concentrations of volatile organic compounds and heavy metal are present at this site. In accordance with Section 300.65 of the National Contingency Plan, the OSC has determined that there is a potential threat to public health or welfare or the environment based on the following factors:

(i) Actual or potential exposure to hazardous substances by nearby populations, due to the unrestricted access and close proximity to residences, businesses and schools;

(ii) Potential contamination of drinking water supplies due the presence of the site within two miles of a local well water field;

(iii) Hazardous substances in drums that pose a threat of release, due to their deteriorated condition;

(iv) Weather conditions that may cause hazardous substances to be released or migrate;

(v) Threat of fire or explosion due, to the significant concentrations of volatile organic compounds; and

(vi) The lack of availability of other appropriate Federal or State response mechanisms to respond to the site.

A summary of the hazardous substances, matrices and ranges of concentration determined to be present in several drums at the site can be found in Table 1. A summary of the same hazardous substances, target organs and potential health effects can be found in Table 2.

Table 1

Hazardous Substance	Matrix	Concentration
o-Xylene	water	1,120 to 13,000 ug/l
	sludge	33,400,000 ug/kg
m-Xylene and/or p-Xylene	water	2,250 to 27,300 ug/l
	sludge	92,000,000 ug/kg
Ethyl benzene	water	46.4 ug/l
	sludge	22,300,000 ug/kg
Toluene	sludge	1,350,000 ug/kg
Trichloroethene	sludge	6,100,000 ug/kg
Lead	solid	4,616 mg/kg
	sludge	7,591 mg/kg
Chromium	solid	8,678 mg/kg
	sludge	5,033 mg/kg

Table 2

Hazardous Substance	Target Organs	Potential Health Effects
Xylene Toluene Ethyl benzene	Blood Bone marrow (a)CNS Eyes Respiratory Skin Liver Kidney	All cause CNS depression: decreased alertness, loss of consciousness. Defatting dermatitis. Xylene vapor may cause irritation of the eyes, nose and throat. High conc. of vapor may cause damage to the kidneys and liver. Ethyl benzene is a lacrimator, severely irritating eyes and mucuos membranes.
Trichloroethene	CNS Kidney Liver Skin	Causes CNS depression: decreased alertness, loss of consciousness. Kidney changes: fatigue, malaise, liver enlargement and jaundice.
Lead Chromium	Blood Cardio-pulmonary Gastro-intestinal Liver Lung CNS Skin	Both are toxic to the kidneys. Each has its own symptom cluster. Lead causes decreased mental activity, weakness, headache, abdominal cramps, diarrhea and anemia. Lead can affect the blood-forming mechanism, kidney and peripheral nervous system. Lead toxicity can cause permanent kidney and brain damage. Chromium has a high pulmonary toxicity and has been implicated as a human carcinogen.

(a)CNS = Central Nervous System